

SECTION A

QUESTION 1

The following exhibits provide information relevant to the question

EXHIBIT 1: Company information – the background, industry information and overall strategy for the company: Chairn Warm Drinks (Chairn).

Chairn Warm Drinks (Chairn) is an unlisted company based in Deeland which produces and sells speciality teas and coffees. There are two aspects to the business: production and retail.

In the production part of the business, the teas and coffees are carefully sourced by a procurement team and are packaged as either dried tea leaves or coffee beans in Chairn's patented resealable pouches. The pouches, which have been through a three-year development programme, have been shown to retain the flavours for 50% longer than most commonly used forms of packaging.

In the retail part of the business, there is a chain of shops managed by the retail director and these are located in large shopping malls across Deeland. In the shops, there are the displays of the pouched products for sale and each shop has a small café area where customers can enjoy Chairn's products.

Chairn has a management team and venture capitalists (VCs) as shareholders. The VCs have provided additional capital needed to support the development of Chairn's pouches and also, an expansion of its retail sites.

Chairn's strategy is to maximise shareholder wealth in the long term by growing the sales of its products which are high-quality and which it can sell at a premium price. The quality will be driven by innovation in both procurement and production methods while the premium price will be achieved by its selling and marketing through its retail chain.

EXHIBIT 2: Performance reporting – details of work required relating to performance reporting at Chairn.

Given the small number and close involvement of Chairn's shareholders, its main method of reporting to them is an annual report which is based on the report that the board uses for its performance review. Chairn's report has recently been criticised by the VCs, although the management is happy with the progress of the business. The chief executive officer (CEO) of Chairn has spoken to the VCs who indicated that they felt the report was ineffective in achieving its principal purpose.

The CEO has asked you to provide an assessment of how well the report reflects the strategy of Chairn. She has given you the most recent report as an illustration in Appendix 1.

EXHIBIT 3: What gets measured gets done – a request for work on how this quote will apply at Chairn.

At a recent board meeting, the retail director reported on two initiatives within the shop operations.

On the first initiative called 'Chairn smiles', this director complained that the shop staff are not responding well to his attempts to encourage them to interact more often and more positively with customers. However, there was a more positive response to the second initiative called 'Save the planet', which is his recent drive to save electricity by getting all shop staff to turn off unnecessary lights and for shop managers to replace constantly-running water heaters with new ones which only heat water as required. However, the retail director noted that the replacement of water heaters was progressing slowly, with some reluctance by shop managers to make the change.

The production director responded that he was not convinced by the retail director's initiatives and that he wanted him to make sure that retail staff are explaining the quality of ingredients sourced and the benefits of the new packaging to customers. The production director is, also, particularly worried about the amount of product which is being thrown out because it has passed its useable date and he wants this included in the 'Save the planet' initiative.

At present, all retail staff (including the shop managers and the retail director) are assessed by way of a general review of their work performed by their line manager. The line manager has to score the staff member (on a 1 to 5 scale) under two headings: sales and reliability. The retail director is assessed on these areas as well, but also has additional metrics of performance relating to the overall performance of the company which are similar to the rest of the board. The board scores the retail director's performance.

The CEO was at a recent business directors' forum where the quote, 'What gets measured, gets done' was mentioned numerous times in the context of performance management. She wants you to explain how it might apply at Chairn given its current performance report and the retail and production directors' issues.

EXHIBIT 4 : Brand survey – details of work relating to a brand awareness and brand loyalty survey undertaken by Chairn.

Chairn's board has commissioned a survey relating to the brand as the VCs believe it is key to growing the profitability of Chairn. The survey was completed by a consultant from an industry-leading marketing business and the CEO considers the source to be reliable. An extract of the relevant details is given in Appendix 2.

The CEO is puzzled by a number of elements of the report and has asked you to answer a number of detailed questions which she has about it:

1. Explain how brand awareness and loyalty interact to benefit Chairn. She would also like you to illustrate your answer by using the data to produce a revenue forecast firstly assuming brand has no impact and secondly assuming that brand will have an impact.
2. Explain what standard deviation means in the context of this report and assess its importance to the results.

EXHIBIT 6: Appendix 2 – Extract of consultant’s report on ‘Survey results on the Chairn brand’.

Extract of consultant's report on 'Survey results on the Chairn brand'

Chairn's market

The market for Chairn's products in Deeland is \$225m.

There are five competing brands in this market, with about equal market shares, and brand is the differentiator in a consumer's purchasing decisions.

Brand awareness

Aware of Chairn – mean score is 2.9 (standard deviation is 1.7).

Percentage of sample surveyed who indicated at least a basic awareness of Chairn brand is 64%.

Method of measurement:

The awareness level is measured on a scale of 1 to 5, with 1 being unaware and 5 being immediately recognisable. A score of 2 shows a basic awareness of the Chairn brand.

Comment on results:

Chairn has a high basic recognition of its brand with a large spread of results.

Brand loyalty

(broken into three categories)

- 1 Did not care about the Chairn brand in purchasing decision
Comprise 25% of the sample and they were found to be 20% likely to choose Chairn from among the five brands available in Deeland.
- 2 Chairn brand being a minor positive factor in a purchasing decision
Comprise 50% of the sample and they were found to be 50% likely to choose Chairn from among the five brands available in Deeland.
- 3 Chairn brand being the major positive factor in a purchasing decision
Comprise 25% of the sample and they were found to be 80% likely to choose Chairn from among the five brands available in Deeland.

Method of measurement:

A survey is taken of participants who have previously purchased Chairn products and who scored Chairn at least 2 in the brand awareness test, showing a basic awareness of the brand. These participants are the 'sample'.

Comment on results:

The Chairn brand clearly commands stronger loyalty compared to other brands in its market.

Note: The survey used industry standard techniques to ensure that all of the results are accurate and have large enough samples to be considered reliable.

REQUIREMENT

It is now September 20X5.

Write a report to the CEO of Chairn to respond to her instructions for work on the following areas:

(i) Performance reporting (10 marks)

(ii) What gets measured gets done (14 marks)

(iii) Brand survey (16 marks)

Professional marks will be awarded for the demonstration of skill in communication, analysis and evaluation, scepticism and commercial acumen in your answer.

(10 marks)

SECTION B

QUESTION 2

The following exhibits provide information relevant to the question

EXHIBIT 1: Company information – for the background and operating environment of the company: Avich.

Avich is a recent start-up company in the gas exploration industry and sells, after some re-processing, the natural gas which it extracts from the ground to larger energy companies. Avich is based in Deeland where it currently operates two sites (Avich A and Avich B) and is looking for a third site, to be known as Avich C. The global market price of gas is at an all time high and Avich plans to exploit this by opening up to eight new sites, also in Deeland, in the next five years.

Avich obtains gas using a process called fracking. This involves pumping water at high pressure deep underground, which forces gas up to the surface. The gas is then processed and sent by tanker to Avich's customers.

Fracking is a controversial process which has attracted criticism. It is alleged that fracking may release toxic pollutants into the surrounding environment and can also create earth tremors which could damage property. Fracking is also criticised for maintaining reliance on fossil fuels, such as gas, rather than developing greener and more sustainable alternatives, such as wind or solar power.

Environmental protests led to the closure of Avich B for several weeks recently, as local residents were angry that the site was allowed to operate in an area of scenic beauty and scientific interest. All fracking sites in Deeland require government permits in order to operate and must do so under strict environmental and operating conditions.

EXHIBIT 2: Environmental management accounting (EMA) – details of work required by the chief financial officer (CFO) on environmental management accounting (EMA) at Avich.

Avich has recently recruited a new chief financial officer (CFO), who has a strong record of helping start-up companies with high growth potential to obtain an early listing on the Deeland stock exchange. She has never worked in the gas industry, however, and is unfamiliar with some of the management accounting practices within it, specifically on the reporting and management of environmental costs. She has been reading about environmental management accounting (EMA) and asked for your help on two matters:

- An allocation of the environmental costs for Avich A provided in Appendix 1 to the following categories of environmental costs – environmental prevention costs, environmental detection costs, environmental internal failure costs and environmental external failure costs. As part of this work, the CEO has asked that you justify your allocation and calculate the annual cost for each of the four categories of environmental costs, where relevant.
- Advice on how consideration of environmental matters could help Avich to manage performance in areas other than identifying and managing environmental costs.

EXHIBIT 3: Life cycle costing – information related to work on the use of life cycle costing for the management of a new site, Avich C.

Avich has not yet found a suitable location for the new site, Avich C. Finding a new location involves undertaking test drilling to establish the existence of underground gas reserves at different sites. This requires the work of geologists who need to determine if there are enough reserves to make fracking at the site financially worthwhile. Test drilling also requires the use of heavy equipment which is expensive to rent. Avich would also have to engage independent experts to assess the potential impact of fracking on the surrounding environment. Only after all this is done can Avich apply for a permit to operate at the site. The Deeland government currently approves 10% of all applications for fracking permits.

The CFO has heard of a concept called life cycle costing and wants you to explain the benefits of using life cycle costing for the management of performance of the new site, Avich C.

EXHIBIT 4: Appendix 1 – examples of environmental costs at Avich A.

Environmental costs at Avich A during the year ended 30 June 20X5

1. A local farmer has issued a legal claim against Avich for \$300,000 for rebuilding a 200-year-old barn. He alleges that the barn was destroyed by an earth tremor caused by fracking at the Avich A site, which is 20 kilometres away. Avich does not accept liability for this but is prepared to offer \$50,000 to avoid any bad publicity arising from the case. The farmer is believed to be willing to accept this.
2. Avich pays an independent scientist to monitor ten local rivers for traces of pollutants which might be caused by fracking. The cost of this is \$2,500 per river each month.
3. Waste water from fracking cannot be stored in open pools or tanks, but must be stored in special sealed tanks so that pollutants do not soak into the ground. Avich A has three tanks which cost \$120,000 each and will last for the four-year economic life of the Avich A site, after which they will need to be de-commissioned at a total cost of \$240,000 for all three tanks. Avich only became aware of the new environmental regulations driving the high value of these costs after the Avich A site became operational.
4. A consignment of gas delivered to one of Avich's customers was found to have a slightly different chemical composition to normal, which meant the customer had to be given a refund of \$175,000, which was 5% of the value of the consignment.

Note: Avich has many environmental costs and these costs for Avich A are only a small number of them.

REQUIREMENT

It is now 1 September 20X5.

Respond to the CFO's request for work on: (a) Environmental management accounting (EMA)

(13 marks)

Note: there are seven marks available for first part of the work required and six marks available for the second part of the work required.

(b) Lifecycle costing

(7 marks)

Professional marks will be awarded for the demonstration of skill in analysis and evaluation, scepticism and commercial acumen in your answer.

(5 marks)

QUESTION 3

The following exhibits provide information relevant to the question

EXHIBIT 1: Organisation information – the background of the organisation: Gare University.

Gare University (GU) is a university in Beeland. It is a private, fee-paying university and this sector is highly competitive in Beeland. The lecturers at GU are under pressure to ensure that students perform well and, though currently pass rates are high for most of the individual courses offered at GU, there is a trend of students not performing well in the final examination.

Assessment of students at GU is consistent across most courses and comprises a mid-term coursework assignment and an end of term final examination. The student's final grade is a combination of the marks achieved in both these components of assessment.

EXHIBIT 2 : Examination performance model – details of work required on a new predictive model developed for examination performance.

The head of the Business School at GU, known as the Dean, is looking at ways in which the final examination mark can be improved, given certain variables of student performance and activity in a course.

To help develop a predictive model, she has chosen, as a representative dataset, a second-year course which was run in 20X4 and identified the following main variables as possible indicators of final examination performance:

Number of activities accessed – activities include virtual and pre-recorded lectures, quizzes and internet links

Performance in coursework (graded A, B, C, D or E)

Total time spent on the virtual learning (VL) platform

Number of practice quizzes undertaken

Number of questions in the quizzes omitted

Frequency with which the VL platform is accessed

Number of lectures attended (attendance is recorded automatically)

This data and the final examination mark achieved will then be entered into the predictive model in order to identify which variables were the strongest indicators of examination performance.

One lecturer has argued that some important variables have been omitted and she has suggested that student grades on entry to the university and performance in previous university courses are variables which should be included. Another lecturer has argued that it would be unhelpful to include any more variables into the model.

The Dean has asked you, as a performance management expert, to specifically comment on the views of the two lecturers and make a recommendation as to whether the additional variables suggested should be included.

EXHIBIT 3: Lecturer performance – information relating to a proposal to use two variables to assess lecturer performance.

Recent use of the predictive model for a course in another department at GU found that students who spent more time on the virtual learning (VL) platform and who accessed a larger number of activities performed better in the final examination than those who did not.

The Dean has suggested that lecturer performance on individual courses should be assessed only on the two variables of the amount of time spent by students on the VL platform and the number of activities accessed by students. She is convinced that if she assesses lecturer performance in this way, student performance in the final examination will improve. In support of this, she has said: 'the black box data that we have is very clear in what will improve performance and the data does not lie.'

The lecturers, however, are concerned and have suggested that this narrow focus on the two activities specified above could be damaging to lecturer behaviour and, ultimately, the students' learning experience. The Dean has asked you to assess these concerns and recommend, with justification, whether her suggestion for measuring lecturers' performance should go ahead.

EXHIBIT 4: 'My Programme' app – a request for an assessment of the ethical implications of an app for students' mobile phones.

The Dean has also heard of a scheme being used at another university in which all students have to download the university's 'My Programme' app to their mobile phones and she wants to introduce this at GU. This would be part of the induction process, for both new and continuing students. Students give their consent to the university's conditions and regulations when they are asked to sign paperwork during the induction process though these conditions and regulations are read in full by few, if any, students. All students must have gone through the induction process to undertake any learning or assessment activities.

The 'My Programme' app can track students' movements. It registers when students are on campus, highlights where on the university campus they are at any given time, and when they leave. This data is also shared with all the catering outlets on the campus. The outlets can use this data to send students a range of personalised messages. For example, if the phone has remained stationary for over an hour, then a message can be sent directly to it to advise the student to take a break and have a coffee. Other messages highlighting the lunch options for the next day are sent to those students who tend to spend some part of most days on campus. The outlets can use the data to build profiles of individual students and their meal preferences.

The Dean believes this is an excellent way to show that GU has student wellbeing at the top of its agenda by being able to advise students when it is right to take a break and she also feels that this will boost revenues for the catering outlets by giving them the chance to sell their products directly to the students.

Some lecturers have argued that the student data could be used in an unethical way with this app and the Dean has asked you to assess if you believe these concerns are justified.

REQUIREMENT .

It is now 1 September 20X5.

Respond to the Dean of the Business School's request for work on the following areas:

(a) Examination performance model (5 marks)

(b) Lecturer performance measurement (8 marks)

(c) "My Programme" app (7 marks)

Professional marks will be awarded for the demonstration of skill in analysis and evaluation, scepticism, and commercial acumen in your answer.

(5 marks)